

Claims

1. Public address system allowing uniform sound coverage over a zone to be addressed, comprising a network of electroacoustic sources (1), each electroacoustic source (1) diffusing a version delayed by a delay (3), filtered by a filter (4), and amplified by an input signal amplifier (5) of the system, characterized in that said network is essentially rectilinear and vertical, in that the angles θ formed by the axes of emission of the electroacoustic sources (1) and the normal line to the network are such that $\theta_n > \theta_{n-1}$, where n is the index of the electroacoustic sources (1) numbered in increasing order from top to bottom of the system, and in that the delays (3) work with the angles θ such that the system generates a wave front (6) of the shape corresponding to the desired sound coverage of the zone to be addressed.

2. System according to claim 1, wherein the angles of inclination θ of the electroacoustic sources (1) are chosen such that for each of the electroacoustic sources (1), the distance d separating the center of said electroacoustic source from the point of intersection between the axis of emission of said electroacoustic source and the desired wave front is minimal.

3. System according to at least one of claims 1 and 2, wherein the delays (3) are essentially $R_n = R_{n-1} + (d_{n-1} - d_n)/c$ for $n > 1$, R_n being the delay (in seconds) linked to the n th electroacoustic source, R_1 being any value, c being the speed of sound in m/s, the distances d being expressed in meters.

4. System according to at least one of claims 1 to 3, wherein the electroacoustic sources (1) are direct radiation loudspeakers.

5. System according to claim 4, wherein the loudspeakers are equipped with essentially

rectangular membranes.

6. System according to at least one of claims 1 to 3, wherein the electroacoustic sources (1) are loudspeakers radiating through waveguides.

7. System according to claim 6, wherein each waveguide radiates through an essentially rectangular orifice such that the particular acoustic velocity is at any instant essentially the same at any point of the radiation orifice.

8. System according to at least one of claims 1 to 3, wherein the electroacoustic sources (1) are groups of loudspeakers.

9. System according to claim 8, wherein the loudspeakers of the same group are adjacent, located in the same plane, and combined such that the group radiates essentially as a rectangular piston would in the frequency band under consideration.

10. System according to at least one of claims 1 to 9, wherein the electroacoustic sources (1) are fixed on the same speaker (2).

11. System according to at least one of claims 1 to 9, wherein the electroacoustic sources (1) are attached to speakers that are mechanically connected to one another.

12. System according to claim 1, wherein the electroacoustic sources (1) are of different heights.